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**MEDICAL JOURNAL**  
**OF AUSTRALIA**

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*1919*  
(With which "The Australasian Medical Gazette," and "The Australian Medical Journal" are incorporated.)

*UNIV. OF MICH.*  
Journal of the Australian Branches of the British Medical Association.

VOL. I.—6TH YEAR—No. 26.

SYDNEY: SATURDAY, JUNE 28, 1919.

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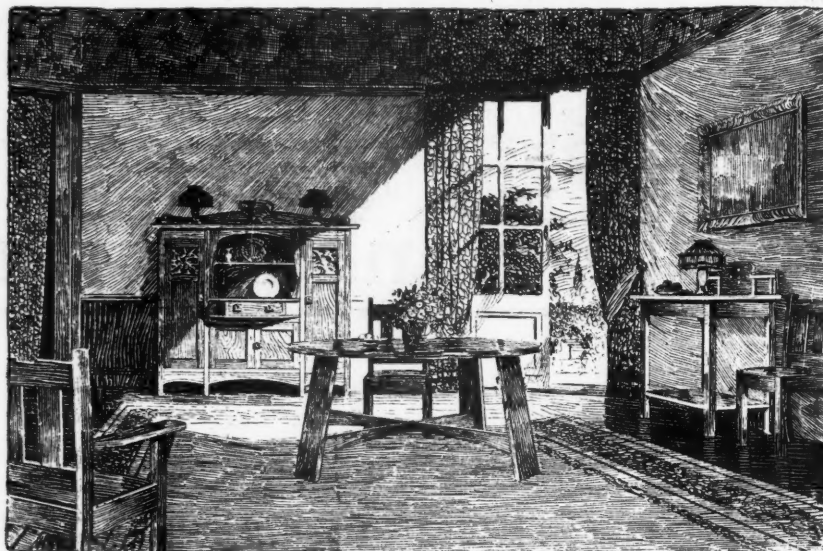
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# THE MEDICAL JOURNAL OF AUSTRALIA.

VOL. I.—6TH YEAR.

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No. 26.

## THE PRESENT STATE OF HOSPITAL RADIOGRAPHIC DEPARTMENTS IN NEW SOUTH WALES.

By J. G. Edwards, M.B., M.S.,  
*Sydney.*

The present state of the X-ray apparatus in use in the country hospitals in New South Wales can only be described as deplorable.

The committees are largely to blame, but the greater share should fall on the shoulders of the Minister of Health for allowing the present state of affairs to exist. In fact, the hospitals under the direct control of the Health Ministry are the most poorly equipped of all hospitals and their largest hospital—the largest hospital in the State—*viz.*, the Coast, has an outfit which would be scorned as an experimental set by any intelligent schoolboy.

Probably the only efficient plants in the State are those at the Sydney, Royal Prince Alfred, Children's, St. Vincent's, Lewisham, Newcastle, Kurri Kurri and perhaps South Sydney and Balmain Hospitals.

These hospitals can cope with all work, except opaque meal examinations: this class of work can only be satisfactorily done at the Sydney and Royal Prince Alfred Hospitals.

Opaque meal work is done at other hospitals, but it is only possible because skilled Röntgenologists are willing to give much valuable time and run much serious personal risk in the interests of the sick poor.

The Mater Misericordiae Hospital at North Sydney is installing an up-to-date plant which will be capable of doing every class of work, and the hospitals conducted by the Roman Catholic Church are to be congratulated on the way in which they attempt to keep abreast with the advances in Röntgenology.

Beyond the hospitals mentioned there is either a total absence of hospital equipment or else there is an equipment that is obsolete, useless and dangerous to patient and manipulator.

Such apparatus may be capable of showing gross displacement of fractures but would be hopeless for kidney work and general bone work.

Why does this state of affairs exist?

There are two reasons: firstly, lack of funds and secondly, ignorance and lack of intelligence in the selection of apparatus.

The committee allots about £100 for the purpose of an X-ray apparatus; they may then ask one of the selling firms to supply an outfit for the money; the firm supplies one at the price and probably gives a good hundred pounds' worth, but the amount of equipment one can purchase for £100 is of little practical value.

Perhaps the committee consults some electrician, either locally or in the city! Now, if there is one person in the world who knows nothing about X-ray apparatus, it is the ordinary electrician, whether graduate or mechanic.

The electrician, thinking it is "up to him," looks

up some old treatise on the subject and recommends the purchase of some ancient and venerable type of apparatus. The order is placed and the goods supplied by a firm which rejoices at the opportunity of selling an outfit they were prepared to scrap. The committee is delighted when the sparks begin to fly and they loudly proclaim that the hospital is now up-to-date, as it possesses an "X-ray Department." It is used for a short while and then gradually is neglected and the patients are not "radiographed."

This, I am afraid, is the true history of the majority of country hospital outfits.

There is only one way to arrive at a satisfactory solution of the great problem of supplying X-ray service to the public of this State, *viz.*, let the Minister for Health call together the leading Röntgenologists and ask them to recommend a standard equipment for the country hospitals. It is no use asking one man here and one man there, as is being done at present, but a small committee could easily handle all sides of the question.

Such a standard apparatus was devised by the United States Army Staff and was used with the greatest success in France and in the United States of America.

It is simple and is capable of delivering 10 m.a. continuously at a 5-inch gap, employing the special type of radiator Coolidge tube.

Such an apparatus can do all work except opaque meal work, but this work is really only possible on the largest equipment and should not be undertaken in the country for the present, at any rate.

Opaque meal work can be referred to the larger centres.

This standard apparatus is supplied in two units weighing about 200 lbs. each.

One unit consists of a petrol-driven dynamo, generating 110 volts alternating current. This is led to the second unit which consists of a step-up transformer with Coolidge control.

In towns with suitable electric supply the first unit would not be needed.

With fixed exposure tables there should be no failures in the production of skiagrams or in the making of screen examinations.

Fifty or more operators could be trained in a special school of instruction and be capable of managing these outfits.

One operator could do the work of four or five hospitals, as the amount of work at any one hospital should not occupy him for more than one day a week.

In certain districts the apparatus could be mounted on a truck and moved to the different hospitals in rotation or on special call; and in such cases all that the local hospital would need, would be a suitable room that the truck could be drawn up to and the cables taken through the walls.

It would not be advisable to take this apparatus to the bedside, but all patients should be brought to the X-ray room. Special bedside equipment would be necessary, if ward work is to be done. Bedside

work should only be done when absolutely necessary, i.e., when some special condition forbids that the patient be shifted.

The operator should never be allowed to attempt the interpretation of the skiagrams; such procedure only brings radiography into contempt.

Simple skiagrams should be interpreted by the medical attendant and the more difficult ones forwarded to a central bureau for interpretation, just as is done with pathological specimens.

Difficult and obscure cases could also be referred to the larger centres for more skilled observation.

The large centres, e.g., Sydney, Newcastle, Bathurst and Goulburn, would need to be equipped with the most modern apparatus to allow of the carrying out of opaque meal examinations and beds would be necessary for the accommodation of these patients during the time needed for the completion of the examination.

With such an arrangement the hospitals would be organized into three classes:—

- (1) Groups of small country hospitals served by apparatus on lorry or truck.
- (2) Larger hospitals with fixed standard apparatus and one manipulator serving four or five hospitals.
- (3) Large central hospitals with more elaborate equipment for dealing with cases not suitable for examination at 1 or 2.

The details of organization and management would be very simple to arrange and in time hospitals in growing districts would be raised to a higher class.

Regular schools should be attended by all manipulators, in order to keep them in touch with all advances in technique.

To sum up:—

- (1) Country hospital X-ray service is at present useless and dangerous.
- (2) Ninety-five per cent. of the present apparatus should be scrapped and the Government insist on the installation of a standard efficient apparatus.
- (3) A maximum standard of protection to patient and operator should be insisted on.
- (4) Skiagrams needing expert interpretation should be referred to experts at a central bureau. Lay operators should never attempt interpretation.
- (5) Hospital grouping and classification would be necessary to obtain efficiency.

### THREE NEW AMPUTATIONS OF THE FOOT, EACH CONSERVING THE CALCANEAL TREAD.

By C. E. Corlette, M.D., Ch.M. (Syd.), D.P.H. (Camb.),  
Honorary Surgeon, Sydney Hospital, N.S.W.

(Continued from page 509.)

#### The No. 2 Operation.

We come now to the consideration of the operation which I have labelled as No. 2 of the series, though it is the last to be described. It was evolved as an attempt to improve on No. 3 by overcoming what seemed to me to be defects or weakness, and it expresses the result of quite a large amount of experimental work. After spending much time and much

thought on the technique, I now feel able to recommend it very confidently.

It will, I hope, be sufficiently understood by the following description:—

1. The remarks on incisions and flap material in connexion with No. 3 operation apply also to No. 2.
2. The sustentaculum tali is removed just as in the other two operations.
3. The talus is removed, as in No. 3.
4. The soft tissues are separated from either side of the calcaneus. The most important part to clear is that immediately behind the site of the sustentaculum on the medial side, and the corresponding area on the lateral aspect. Further back, the separation need not

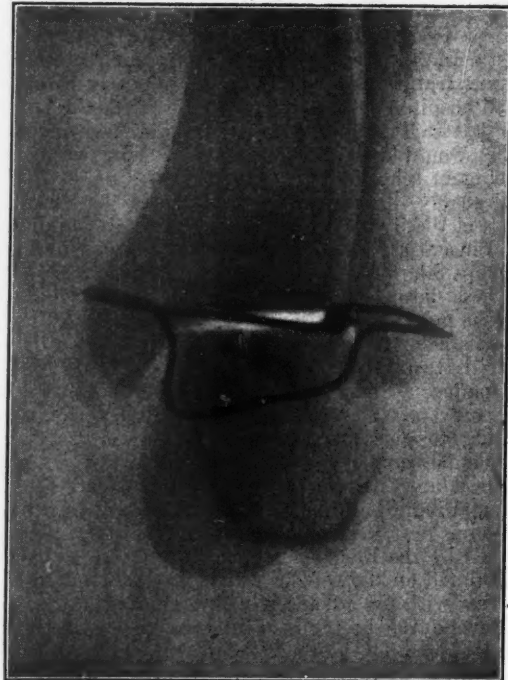


Figure XVIII.

No. 2 operation, radiogram giving antero-posterior view. Note the plane of section of the tibia between the malleoli. Note the method of ligaturing the calcaneus in position by a wire traversing the calcaneus from side to side and then passing out horizontally in the same direction through the bases of the malleoli. By pulling up the wire taut the calcaneus is brought up and secured in apposition, plane surface to plane surface, with the tibia. In this case the wire had not been pulled up quite tight enough to procure absolutely perfect apposition, and it illustrates the desirability of attending to this point carefully. A wire that is too thin breaks if the tension exerted is very great, while one that is too thick is not pliable enough, and when pulled on may tear the bony tissue of the malleoli.

extend far down the sides of the bone. The rugine is also used to separate the soft tissues from the saddle-shaped superior surface of the calcaneus behind the convex articular facet. The tendons severed in removal of the anterior part of the foot, and lying loose, adjacent to the side of the calcaneus, should be cut back also as far as conveniently possible. Then the remnant of the anterior ligament is cut away from the lip of the lower extremity of the tibia. Finally, also the soft tissues are separated from the surface and borders of each malleolus, great care being exercised to avoid injury to vessels, nerves or skin, the



cutting edge of knife, rugine, or osteotome being kept steadily close to and towards the bone.

5. It will be well now to remove the prominent upper and anterior part of the greater process of the calcaneus, so as to prepare for the easy performance of the next step, which is an important one.

6. We now have to make a plane surface on the upper aspect of the body of the calcaneus. This is destined to fit beneath a plane surface to be made on the distal extremity of the tibia, between the malleoli. We desire so to carry out the operation that, when it is finished, the natural heel-pad shall be preserved to constitute the tread of the stump. If the reader will recall to mind the anatomy of the undisturbed

same time keep the inclination of the calcaneus unaltered, so as to retain the same heel-pad. To keep the calcaneus at its natural tilt it is manifest that, if our plane surface is to be really level in relation to the horizon, it must be sloping to a moderate degree upwards and backwards in relation to the long axis of the bone. We can then slide the bone forwards at its old inclination and so retain the original point of pressure. But to get this point approximately in line with the tibia, it will have to be pushed forwards very considerably, so our section must extend as far back as is conveniently possible, that is, as far back as the posterior surface. And in order to get a broad enough section to give a good area for apposition with the tibia, it will be found necessary to take off rather more than just a superficial slice of the upper aspect of the calcaneus, behind the convex facet, since the saddle-shaped portion behind the facet is so narrow at

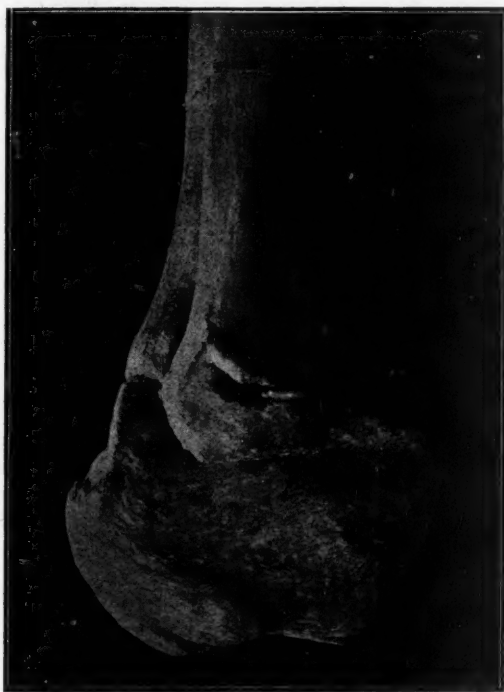


Figure XIX.

No. 2 operation, bone preparation, front view. The calcaneus is seen in position between the two malleoli with its upper, plane-cut surface in apposition with a similar plane surface cut on the tibia. The bones are held together by a wire ligature about one millimetre in diameter. This passes transversely through the calcaneus and then through the malleoli on either side in such a way that when the wire is drawn taut it pulls the calcaneus up firmly against the cut surface of the tibia. The wire is then brought forwards and both ends are securely twisted up together in front, as seen in the photograph. On the right (medial) side the wire can be seen, though not very well, emerging from the calcaneus and passing up towards the deep aspect of the medial malleolus, whence it emerges after traversing it. The level of the take-off of the plane surface cut on the calcaneus can be clearly seen just below the wire across the front, and below this can be seen the shadow marking the sulcus which normally provides attachment for the interosseous ligament.

foot, he will recollect that in the normal state, the long axis of the calcaneus does not lie horizontally, but forms the posterior limb of an arch, and its general direction is one rising from behind forwards. He will also recollect that the tread of the heel is at the base of this arch, and behind the plumb-line of the tibia. There will be no ankle-joint to pivot on and distribute stresses, and we must make an effort to get the tread as nearly as possible in the line of the tibia. This means advancing the tread, and we must at the



Figure XX.

For description see Figure XXII.

the top. Different specimens of the os calcis vary so much that one cannot give precise instructions as to the amount of bone required to be removed (Fig. II.).

I recommend that no attempt should be made to remove the upper segment of the calcaneus in one piece, by massive cutting. The method looks attractive, but gives uncertain results. On the other hand, the shaving-down method gives complete command of results, and is easy. In this way we cut down first the prominence which marks the upper part of the convex articular facet. The osteotome then shaves back along the saddle, behind the prominence, until it reaches as far as the summit of the smooth bursal area of posterior surface above

the attachment of the Achilles tendon. At first, the plane surface is broad anteriorly, but very narrow behind. We go on shaving down the bone until a fairly broad surface exists along the whole area. The anterior margin of the plane of section has now reached a level corresponding roughly with the beginning of the rise of the convex articular facet, just beyond and above the sulcus accommodating the interosseous ligament (see the line of section shown in drawing, Figure II.). The line of section recommended for the No. 1 operation will do, but the one here described is preferable. But the section should not be carried so low and so far back at its posterior end as the insertion of the Achilles tendon. If it were done, the surface of the bone corresponding to the insertion of the



Figure XXI.  
For description see Figure XXII.

tendon would adhere to the tendon fibres, and it would probably also be comminuted. The surface layer should be allowed to remain, and the broken bits, if there are any, should not be forcibly dragged away, as they will continue to live, and may be useful sources of new bone. In an ordinary case there is really no need to manufacture technical difficulties by going thus low down with the back of the cut. We have to produce an upward and backward slope on the surface, and this slope, besides being correct theory, is much easier in technique than a cut made parallel to the long axis of the calcaneus, a fact anyone can prove for himself on the cadaver. The upward slope clears us from complications with the tendon, and it is also afterwards more easily adjusted to the tibia. Indeed, some of my specimens show that really excellent results can be got, even without reach-

ing as far back as the posterior surface (Fig. XXII.). Such a simple operation is quite easy.

A plane horizontal surface has now to be formed on the distal extremity of the tibia, between the two malleoli. Cut away with the osteotome the anterior lip of the extremity. It is not necessary to avoid massive cuts on the tibial extremity as it is on the calcaneus. A vertical cut through the lip may be made on either side, and then a horizontal sulcus across joins them; this is gradually deepened, cutting the plane from before backwards. The plane of the cut must be high enough to shave cleanly away the articular surface of the top of the concavity of the arch, or dome, and it should then be extended back until the posterior lip is also removed, extreme care being taken not to drive the osteotome into the soft tissues on the posterior aspect. The whole surface can then be dressed even by shaving. Care must be taken to preserve un-



Figure XXII.

No. 2 operation. bone preparations. Three specimens showing side view on fibular aspect. In Figure XX. and Figure XXI the cut on the calcaneus has extended as far back as the upper limit of the posterior smooth surface. In Figure XXII. the cut has ended posteriorly at a point anterior to this, on the saddle-shaped area of the upper surface, and the advancement of the calcaneus has been correspondingly less. Note in all the specimens how the upward and backward slope of the cut made on the calcaneus secures preservation of its natural tilt when the bone is brought forwards and preserves the calcaneal tread in its natural position. Note that, even in Figure XXII., the tread comes directly beneath the line of the tibia. In Figure XX. and Figure XXI. the shortening and trimming to which the fibular malleolus has been subjected is displayed very clearly.

injured the compact articular surface layer of bone on the deep aspect of both malleoli. If this layer of hard bone be missing, the wire to be employed afterwards will cut through the soft cancellous tissue which remains, just as if it were cheese. The main purpose of the existence of the malleoli, so far as this operation is concerned, is for the use that may be made of this hard and resistant layer of bone on either side.

8. If an attempt is now made to fit the cut surface on the calcaneus beneath that on the tibia, it will be found that the lateral malleolus is too thick and too long. The next step therefore consists in shearing off half or more of the downward-projecting length of the fibular malleolus, so that it shall not project any more than the medial malleolus. It is then carefully thinned and bevelled, to reduce its lateral thickness, particular attention being directed to the posterior portion, where it is thickest. Treat the soft parts always with respect. The covering is very thin over the prominent posterior border, where the bone is subcutaneous.

9. Now take the drill and make a horizontal drill-hole through each malleolus in a transverse direction. The drill-hole will not really be quite horizontal, and it is decidedly an advantage for it to slant a little upwards, because the upward inclination makes an angle round which the wire ligature is to be drawn less acute, and therefore makes it easier to pull up and less apt to break. Begin each hole on the deep aspect of the malleolus, and make it pass through the hard articular lining as near the base of the malleolus as may be, and about midway between the anterior and posterior limits of the malleolus. Place a spatula, or similar flat instrument, between the superficial aspect of the malleolus and the soft tissues, so that the point of the drill, when it emerges, will not penetrate anything except the bone.

10. Next, make a trial fitting of the calcaneus to the tibia, plane surface to plane surface. Remember that we wish to bring the point of contact with the ground forwards, as near as may be to the line of the tibia, and that the tilt of the calcaneus is intended to be so adjusted that the natural pad of the heel is to occupy the pressure-point as before. We shall, therefore, have to slide the calcaneal fragment forwards to an approved situation, which must be marked, and if the slope of the cut is not correct enough, it can be altered by shaving off bone either from the tibial surface or from the calcaneal. By measurement and by marks we also note where a straight line joining the drill-holes in the malleoli would cross the calcaneus when fitted in the desired position. It is important to get this line correct, for on its correctness depends the registration, or alignment, of the calcaneus in the exact position intended by the surgeon, as shown at the trial adjustment. Having secured all the required information, we then make a side-to-side horizontal drill-hole through the calcaneus in the line that is to correspond with that between the two malleoli, and at a depth of about six or seven millimetres ( $\frac{1}{4}$  in.) beneath the cut surface. The soft tissues are again protected with a spatula in the way already described.

11. It will be convenient to remove the tourniquet and attend to hæmostasis in the deeper parts of the operation area at this stage, before proceeding to wire the bones. In the meantime, a guide may be left in the calcaneal bore-hole.

The wire that is to be used for drawing the bones together and holding them in position must be strong enough to stand a fair amount of tension, and must be at the same time pliable. If too thin, it is apt to break. In my experiments I chiefly used copper wire of one millimetre diameter. This occa-

sionally broke, but anything much thicker was too stiff. I think silver wire not less than 1 mm. nor more than 1.5 mm. diameter would be the most suitable for operations on the living. I have never tried soft iron wire, highly recommended by Hey Groves for bone work.

Hæmostasis having now been attended to, a piece of wire some 20 centimetres (8 inches) or so in length is taken and threaded through the transverse bore-hole in the calcaneus. The free ends of the wire on either side are then passed through their respective malleoli, entering the boreholes on their deeper aspect and emerging superficially, the soft tissues being protected from injury meanwhile, as when the drill was employed. The two ends are then drawn quite taut, while the calcaneus is carefully pushed into position. At the same time, the soft tissues at the back are pushed away by a suitable instrument, and prevented from intruding between the cut surfaces of the calcaneus and tibia while the bones are being approximated. When the manoeuvring has been completed and the wire is quite taut, the calcaneus is held firmly, closely, and immovably in accurate position. The wire ends are then brought forwards across the front, twisted up securely together, and the points tucked in safely.

12. The anterior portion of the calcaneus now projects forward far beyond the lateral plane of the front of the tibia. This projection is now bitten down with gouge forceps, or otherwise removed, until it is reduced to a prominence of convenient size, or if flaps are rather scanty, it is made flush with the tibia. No sharp corners are left.

13. The flaps are now finally cut down to convenient size and shape if necessary, hæmostasis is secured, and the wound is closed. A wide drain should be left in for 36 hours.

As an appendix to Step 11, I might say that in two cadaver operations I used slices of the individual's own flexor longus hallucis tendon as a ligature instead of wire. I did it in the following way: Before proceeding to amputate, the tendon was displayed by incision and dissection, its end detached from the toe, and it was then held out of harm's way while the amputation was done. Later on, when the sustentaculum and the talus had been removed, the tendon was cut proximally as far up as possible, close to the tibia. It was then carefully split by slicing along its whole length. A single length not being long enough, the two sliced ends were joined, to make it longer. The tendon was pulled through the drill holes by slipping backwards through the holes a loop made by bending double a length of fine steel wire of the kind used for a nasal polypus snare. The wire was pushed through loop first, and when it appeared on the other side, the end of the tendon was placed in it and brought through by pulling up the wire. The drill holes need to be large, and probably thinner tendon would do. The tendon experiments seemed to be satisfactory. Possibly kangaroo tendon, chronic gut, or salmon gut would suffice if great care were taken to keep it taut when making the knot. But wire is an easier material to work with, and its stiffness, combined with pliability, which causes it to stay as put, retaining its curves, allows it to function additionally as a



sort of splint as well as a ligature, which is another advantage.

Finally, in No. 2 operation, as in the others described, if flap tissue is scanty, the calcaneus can be still further cut down and cut back, and the malleoli can be shortened so as to be just sufficient to give a hold to the ligature by their articular surfaces (Figs. XVIII., XIX., XX., XXI. and XXII.).

#### Mr. Gordon Watson's Amputation.

In making a further look into the literature of foot amputation, I found, after I had finished my own work, and written the foregoing descriptive matter, that I had missed a description by Gordon Watson of an operation he had evolved, also preserving the calcaneal tread, and resembling in some respects the operation I have described as No. 2. He certainly started on the same track, and I believe that if he had gone on to make an extended experimental study on the cadaver, the ultimate differences would have been few and unimportant. His operation antedates mine by some eight years, as he showed two cases at the Clinical Society of London in 1907. A description will be found in Burghard's "System of Operative Surgery," Vol. I., p. 200 (1909), and also in the *British Journal of Surgery*, Vol. II., p. 390 (January, 1915). Gordon Watson makes an incision practically similar to that which I have employed. The dorsal incision is completed first, and then he removes the talus. He does not remove the distal part of the foot until the talus has been removed, as he finds it useful as a handle for leverage. I regard this as a good idea, when there is any distal part to hold on by, which would probably be rather seldom. Having removed the talus, he amputates through the medio-tarsal joint, and does subcutaneous section of the Achilles tendon. Then he takes a gouge, and with it removes the cartilage from the articular surface of the tibia, and then likewise with gouge or chisel pares away the cartilaginous surface of the convex articular facet on the calcaneus. He also removes the sustentaculum. Then he fits the calcaneus beneath the tibia, between the malleoli, and drives a six-inch pin perpendicularly up through the skin of the heel-pad, through the calcaneus and into the tibia. The anterior projection of the greater process is cut back, and the wound closed. For further and more detailed information, Mr. Watson's own paper in the *British Journal of Surgery* should be consulted. To my mind, Mr. Watson has an excellent and original surgical idea to his credit. My own No. 2 operation is equally original, in spite of a difference in dates, and though I think I see several very great and overwhelming advantages in my operation, as compared with his, I do not propose to work out the comparison here.

#### Epitome of No. 1 Operation.

1. Incision.
2. Disarticulate at the medio-tarsal joint.
3. Cut off the lower part of head of talus, with slope a little backwards and upwards.
4. Cut away sustentaculum tali.
5. Cut down the upper part of the anterior projection of the greater process.

6. Remove the interosseous ligament. Cut the lateral, medial and posterior talo-calcaneal ligaments, and calcaneo-fibular band of the lateral ligament of the ankle. Separate the soft parts from sides and upper part of the calcaneus. Cut short useless tendons.

7. Continue the plane of section on the lower aspect of the talus backwards and upwards until a plane cut surface remains and the whole articular surface is removed.

8. Shave down the upper aspect of the calcaneus until a plane surface with an upward and backward slope is produced, suitable for fitting beneath a similar surface on the talus.

9. Push forwards the calcaneus till it projects say 2 cm. in front of the head of the talus and adjust it to fit there neatly.

10. Bore holes from side to side through the neck of the talus and through the calcaneus in such a position that a wire ligature passed through the holes and tightened will hold both firmly in their destined position, relative to one another.

11. Trim the flaps, but leave the anterior tendons long enough to suture to the base of the lower flap.

12. Remove the tourniquet and attend to hæmostasis.

13. Wire the bones tightly together with stout wire (1 to 2 mm.).

14. Trim away any excessive projection of bone (greater process of the calcaneus).

15 and 16. Suture the tendons and close the wound.

#### Epitome of No. 2 Operation.

1. Incision, and disarticulation at the medio-tarsal joint.

2. Cut off the sustentaculum tali.

3. Remove the talus.

4. Separate the soft tissues from the side and upper part of the calcaneus. Shorten the tendons. Cut away the remains of the anterior ligament of the ankle-joint from the lip of the lower extremity of the tibia, and clear away the soft tissues from the surface and borders of each malleolus.

5. Cut away the prominent upper anterior projection of the greater process of the calcaneus.

6. Cut a plane surface on the upper aspect of the calcaneus with slope upwards and backwards; cut until a good breadth of cut reaches well backwards. It is usually best to reach as far as the summit of the smooth portion of the posterior surface.

7. Cut a plane horizontal surface on the distal extremity of the tibia between the two malleoli.

8. Shear off half the downward projecting length of the lateral malleolus. Then thin it and bevel it to reduce its bulk. Conserve the articular face on its deep aspect.

9. Drill each malleolus in a transverse direction.

10. Make a trial fitting of the calcaneus to the under aspect of the tibia, between the malleoli, the calcaneus to be slid forwards in a well-advanced position. Make a drill hole across the calcaneus in such a position that a wire ligature passed through it and through the malleoli on either side will hold the calcaneus up into position against the tibia between the malleoli when drawn taut.



11. Attend to hæmostasis.
12. Wire up tight with 1 mm. silver wire. Tendon may be substituted.
13. Trim away any projecting bone.
14. Close the wound.

#### Epitome of No. 3 Operation.

1. Skin incision, and amputation through the medio-tarsal joint.
2. Remove the sustentaculum tali.
3. Remove the talus.
4. Remove a slice of the distal extremity of the tibia and the lateral malleolus, as in Syme's operation, but with an osteotome.
5. Remove the upward projection of the greater process, and then shave down the calcaneus to form a plane surface with a slope upwards and backwards. Cut away any surplus lengths of useless tendons.
6. Push forwards the calcaneal remnant into a well-advanced position, after attending to hæmostasis, and fix it there by a 2 mm. wire ligature passed through boreholes made from side to side through the tibia and the calcaneus. Cut back any excessive projection of the calcaneus.
7. After final trimming of flaps, etc., where necessary and hæmostasis is fully secured, suture up the wound.

### Reviews.

#### PRACTICAL IMMUNOLOGY.

B. A. Thomas and R. H. Ivy have brought out a second edition of their book on "Applied Immunology."<sup>1</sup> The new edition is somewhat fuller than the first edition, but the scheme of the book is essentially unaltered. In our review of the first edition<sup>2</sup> we pointed out that the authors were too prone to dogmatize and that many of their assertions were open to objection on the ground that proof was lacking. We did not exhaust the list of statements which were in need of more minute elaboration or which failed to carry conviction. Neither did we give a complete enumeration of the descriptions of technique or doctrine to which no exception could be taken. A complete review of this book would occupy more space than is at our disposal. With the amended and extended edition before us, we find little reason to enter more fully into a discussion of the subject matter. In referring the reader to the former review, we would add that the book is an interesting one to read and especially to read with frequent reference to other works on immunology. The experienced laboratory worker will find here and there passages of value and will enjoy the mental exercise of analysing the authors' views and teaching. He will not be prepared to accept many of the statements and he will be careful not to emulate the authors in regard to many points in his teaching. The inexperienced worker will soon discover for himself whether the explanations given satisfy him on theoretical grounds and whether the practical methods advocated yield as clear results as he would desire. The appendix on the administration of salvarsan and neo-salvarsan are worthy of careful perusal and can be recommended to practitioners who have to deal with venereal diseases. It contains much useful information.

#### QUESTIONS AND ANSWERS.

Part Five of the Catechism Series of publications deals with surgery. It is a small paper-covered volume, paged

<sup>1</sup> Applied Immunology: The Practical Application of Sera and Bacterins Prophylactically, Diagnostically and Therapeutically, with an Appendix on Serum Treatment of Hemorrhage, Organotherapy and Chemotherapy, by B. A. Thomas, A.M., M.D., and R. H. Ivy, M.D., D.D.S.; 1916. Philadelphia and London: J. B. Lippincott Company; Demy 8vo., pp. 364, with 5 coloured plates and 68 illustrations in the text. Price, 16s. n.t.

<sup>2</sup> The Medical Journal of Australia, March 4, 1916.

as from page 309 to page 380.<sup>3</sup> It appears to have been designed as a cram book for students preparing for examinations where, of course, all questions are of equal importance. At all events, subjects of no practical importance whatever are given a disproportionate amount of attention. It is a question and answer system and seems to have been filling some sort of demand, since this is the third edition. We hold that it is a pity that examinations should be conducted so as to evolve books of the kind. As for the answers, we should be inclined to very poor marks for some, as for instance, the definition of diverticulitis, as "inflammation of a Meckel's diverticulum."

### Naval and Military.

#### CASUALTIES.

In the 466th list of casualties, which was issued for public information on June 18, 1919, two out of the seventeen names of commissioned officers are those of medical officers of the Australian Army Medical Corps. Both Major Errol Solomon Meyers and Captain Algernon George Rowley Lilford, M.C., are reported to be ill.

#### HONOURS.

Surgeon-General Charles Snodgrass Ryan, C.B., V.D., Principal Medical Officer of the Third Military District, has been created a Knight of the British Empire. Sir Charles has only recently returned from active service with the Australian Imperial Force. We tender him our heartiest congratulations.

#### APPOINTMENTS.

The following appointments, etc., have been published in the *Commonwealth of Australia Gazette*, No. 73, of June 12, 1919:—

##### Australian Imperial Force.

###### Second Military District.

Major-General Sir N. R. Howse, V.C., K.C.B., Australian Army Medical Corps, on return from Australia, resumes duty as Director, Medical Services, A.I.F., vice Colonel R. J. Millard, C.M.G., Australian Army Medical Corps, who resumes appointment of Deputy Director, Medical Services, A.I.F.. Dated 26th February, 1919.

Captain G. B. Lindeman, Australian Army Medical Corps, having resigned, his appointment in the A.I.F. is terminated. Dated 3rd March, 1919.

###### Third Military District.

Major A. J. Collins, D.S.O., M.C., Australian Army Medical Corps, relinquished the appointment of Deputy Assistant Director Medical Services, Australian Corps. Dated 26th February, 1919.

###### Fourth Military District.

Lieutenant-Colonel (temporary Colonel) S. R. Burston, D.S.O., Australian Army Medical Corps, relinquished the temporary rank of Colonel and ceased to command Third Australian General Hospital on return from "1914 leave" of Lieutenant-Colonel (temporary Colonel) A. G. Butler, D.S.O.. Dated 26th February, 1919.

##### To be Captain—

Honorary Captain C. H. Smith-Hozier, Australian Army Medical Corps Reserve. Dated 21st May, 1919.

#### APPOINTMENTS TERMINATED.

##### First Military District.

Major L. B. Elwell, M.C.. Dated 28th June, 1919.  
Captain E. D. Ahern. Dated 6th June, 1919.

<sup>3</sup> Catechism Series, Surgery, Part V., Third Edition, by Captain G. R. Whittaker, R.A.M.C., F.R.C.S., F.R.S.E., etc.; 1917. Edinburgh: E. & S. Livingstone. Pocket size, pp. 380. Price, 1s. 3d. net.

*Second Military District.*

Lieutenant-Colonel C. B. Blackburn. Dated 2nd June, 1919.

Major J. M. Alcorn. Dated 26th May, 1919.

Major B. Brooke. Dated 26th June, 1919.

Major H. Rayson, M.C. Dated 7th June, 1919.

*Third Military District.*

Lieutenant-Colonel W. E. L. H. Crowther, D.S.O. Dated 9th April, 1919.

Major M. B. Johnson. Dated 11th April, 1919.

Major R. F. Craig. Dated 1st April, 1919.

Major H. N. Featonby. Dated 3rd March, 1919.

Major J. S. Yule. Dated 15th May, 1919.

*Fourth Military District.*

Major D. M. Steele, M.C. Dated 23rd June, 1919.

Major F. L. Wall, M.C. Dated 27th June, 1919.

Captain R. A. Baker. Dated 12th June, 1919.

Captain A. Goode. Dated 10th June, 1919.

**Australian Naval and Military Expeditionary Force.****APPOINTMENT TERMINATED.***Fourth Military District.*

Brevet-Colonel C. L. Strangman. Dated 13th February, 1919.

**Australian Military Forces.****GRANT OF HONORARY RANK.**

The undermentioned, who have served in the Australian Imperial Force as Commissioned Officers, having the rank held by them in the Australian Imperial Force confirmed as honorary rank in the Australian Military Forces, as follows:—

Officers who, on appointment for active service outside Australia, were serving, and are now serving, in the Australian Military Forces as Senior Cadets:—

*Second Military District.**To be Honorary Lieutenant-Colonel—*

Honorary Captain C. B. Blackburn, Australian Army Medical Corps Reserve. Dated 1st August, 1916.

*Third Military District.**To be Honorary Lieutenant-Colonel—*

Brevet-Major W. E. L. H. Crowther, D.S.O., Australian Army Medical Corps. Dated 21st October, 1917.

*To be Honorary Major—*

Captain R. F. Craig, Australian Army Medical Corps. Dated 20th June, 1917.

Honorary Captain H. N. Featonby, Australian Army Medical Corps. Dated 28th January, 1918.

*Fourth Military District.**To be Honorary Majors—*

Honorary Captain C. F. Pitcher, Australian Army Medical Corps. Dated 14th November, 1916.

Honorary Captain D. M. Steele, M.C., Australian Army Medical Corps Reserve. Dated 28th February, 1918.

The undermentioned, who has served in the Australian Imperial Force as commissioned officer, being appointed to the Australian Army Medical Corps Reserve (temporarily), and being granted honorary rank equivalent to that held by him in the Australian Imperial Force:—

An officer who, on appointment for active service outside Australia, was not serving in the Australian Military Forces:—

*Third Military District.**To be Honorary Captain—*

R. Watson. Dated 14th November, 1914.

**APPOINTMENTS, PROMOTIONS, ETC.***First Military District.**Australian Army Medical Corps—*

Arthur Duncan McKenzie to be Captain (provisionally). Dated 19th March, 1919.

*Australian Army Medical Corps Reserve—*

Claude Somerville Hawkes to be Honorary Major. Dated 10th April, 1919.

*Second Military District.**Australian Army Medical Corps—*

Captain (Temporary Lieutenant-Colonel) S. G. L. Catchlove relinquishes the temporary rank of Lieutenant-Colonel and is transferred to the Australian Army Medical Corps, Third Military District, and with corps seniority next after Captain (Brevet-Major) J. H. Anderson. Dated 1st April, 1919.

Honorary Captain (Temporary Major) G. C. Harper relinquishes the temporary rank of Major and is re-transferred to the Australian Army Medical Corps Reserve. Dated 27th April, 1919.

Captain (Temporary Major) A. L. Kerr to be appointed Adjutant, Australian Army Medical Corps with the pay of Major. Dated 28th February, 1919. Captain A. L. Kerr retains the temporary rank of Major whilst holding the appointment of Adjutant.

Captain (Temporary and Honorary Major) A. P. Wall relinquishes the temporary rank of Major and is granted the temporary rank and pay of Lieutenant-Colonel whilst holding the appointment of President, Permanent Medical Referee Board. Dated 1st March, 1919.

*Australian Army Medical Corps Reserve—*

Clarence James Middleton to be Honorary Captain. Dated 24th March, 1919.

*Third Military District.**Australian Army Medical Corps—*

Captain (Honorary Lieutenant-Colonel) E. T. Brennan, M.C., to be transferred from Fifth Military District. Dated 1st April, 1919.

Captain (Temporary Lieutenant-Colonel) S. G. L. Catchlove to relinquish the temporary rank of Lieutenant-Colonel and vacate the appointment of Officer Commanding No. 5 Australian General Hospital. Dated 10th March, 1919.

Honorary Captain H. E. Featherstone is granted the temporary rank and pay of Major whilst employed as Officer Commanding No. 5 Australian General Hospital. Dated 11th March, 1919.

Honorary Major J. K. Richards to be transferred from the Australian Army Medical Corps Reserve, with the rank of Captain, and to retain the honorary rank of Major. Dated 5th April, 1919.

*Australian Army Medical Corps Reserve—*

Honorary Major J. K. Richards to be transferred to the Australian Army Medical Corps, with the rank of Captain, and retain the honorary rank of Major. Dated 5th April, 1919.

*Fourth Military District.**Australian Army Medical Corps Reserve—*

Walter Rupert Reynell to be Honorary Captain. Dated 25th March, 1919.

Captain (Temporary Lieutenant-Colonel (Honorary Lieutenant-Colonel) J. Corbin to be relieved of his appointment as Consultant Surgeon at No. 7 Australian General Hospital and relinquish the temporary rank of Lieutenant-Colonel. Dated 31st January, 1919.

The resignation of Honorary Major R. G. Williams of his commission is accepted. Dated 31st March, 1919.

*Fifth Military District.**Australian Army Medical Corps—*

Captain (Honorary Lieutenant-Colonel) E. T. Brennan, M.C., to be transferred to Third Military District. Dated 1st April, 1919.

**Corrigendum.**

We regret to find that in *The Medical Journal of Australia* of June 7, 1919, the name of the author of an article, "The Psycho-Neuroses of War," is printed incorrectly. The name should read W. R. Reynell, and not Regnell.

## The Medical Journal of Australia.

SATURDAY, JUNE 28, 1919.

### The Royal Australian Naval Medical Service.

Mr. G. A. Syme signalized the dinner given in Melbourne to the medical officers of the Royal Australian Navy by the Victorian Branch of the British Medical Association on June 12, 1919, as an historic occasion. Events of surpassing magnitude have followed one another with such rapidity during the past few years that there is a danger of important landmarks being passed by unheeded, unless we are ever vigilant and jealous to recognize the significance of each milestone by the way. The Australian Army and the Australian Navy have existed as potential forces for several years. They have both received their baptism of fire. The Army Medical Service has constantly remained before our eyes during the leviathan struggle. Those who have the stability and prosperity of Australia at heart will wish to see the Army Medical Service develop in peace time into an efficient, strong and ready body. For the first time in our history the medical branch of the sister service has received the homage due to it. The handful of medical practitioners who proudly and gloriously stood at duty during the nerve-racking experiences of the Royal Australian Navy since 1914, have laid a foundation for a career as useful, as dependable and as noble as any. Surgeon-Commander E. T. P. Eames will not be satisfied until his service is second to none. The medical profession must say "Amen" and must guarantee that he is given the opportunity to develop his service well and solidly. Not long ago a correspondent expressed in these columns the opinion that the Naval Medical Service bred stagnation, offered no career for young practitioners and was devoid of reasonable terms of service. How utterly he misrepresented the real state of affairs was revealed in these pages and is being revealed in the Navy itself day by day.

The Naval Medical Service, like any other organization in the world, is and will be what those who compose it care to make it. Without keenness to

excel on the part of the medical officers it will drift into a cumbersome and dreary appendage to a splendid service. Unless intelligent men spend their energies to make the medical service synonymous with efficiency and up-to-date theory and practice, the pride we feel at the termination of the war will fade away. Young graduates can inform themselves both from the records and from their elder colleagues of the fact that the men entering the service get a fair deal. The remuneration is adequate and the chances of promotion are excellent. The opportunities for scientific study and for clinical work have been devised carefully, in order that no one who wishes to progress while in the service, need stand still or deteriorate. It lies entirely with the medical officers to make themselves *au fait* with current knowledge and to become as efficient in their profession as any other practitioners.

The admiration of the whole world is focussed on the Imperial British Navy. Our Navy is part of this invincible machine, this watch-dog that neither sleeps nor ceases to guard the long shores of the British Empire. The records of the manner in which the medical officers of this great service performed their duty, unwatched and unheard, has thrilled every Australian. In honouring the toast of the Royal Navy and the Royal Australian Navy, the members of the Victorian Branch of the British Medical Association acted on behalf of the whole medical profession in the Commonwealth. The men who replied to the toast and those who will follow them in the service, have a grave responsibility. They have a reputation to maintain at its present high level. We must not forget that the medical profession is the recruiting ground for the medical officers of the Royal Australian Navy and care must be taken that men with brains and first-class training are induced to join. In recommending this service to young graduates we are justified in adding that they may consider it a privilege to take part in the splendid task of keeping the service efficient. God bless the Royal Australian Naval Medical Service!

### THE TREATMENT OF INFLUENZA.

Influenza is notoriously a disease with a varying mortality. It is also apparent from the records of skilled clinicians in all parts of the world that hitherto no form of treatment has been found to be especially



efficacious. Indeed, many physicians of wide experience hold that rest and judicious depression by sedatives represent the most promising therapeutic agents at their disposal. A very large number of therapeutic suggestions have been made in connexion with this disease. We have but to instance the exhibition of influenza bacillus vaccines, the giving of mercurial preparations, the injection of pneumococcal immune serum, the giving of calcium lactate and the injection of eusol. The advocates of each of these methods of treatment have claimed an extraordinary reduction of mortality by them. Before any method of treatment can be accepted as of special value, it is absolutely essential that the therapeutic experiments shall be adequately controlled. The system of the alternate case or of successive series is often neglected, because the clinician has the impression of a life-saving power on the part of his treatment, and is consequently loath to withhold it in severe cases. L. W. McGuire and W. R. Redden would be in a stronger position in their advocacy of the treatment of post-influenzal broncho-pneumonia by the serum of persons convalescent from this condition, had they seized the opportunity of controlling the value of this treatment.<sup>1</sup> They started their observations during the second half of 1918 and are now in a position to record their results in a series of 151 cases. Patients who have suffered from broncho-pneumonia following influenza and whose temperature has not been raised for ten days, are bled on two occasions. At each bleeding 500 c.cm. of blood are withdrawn. The serum of these patients is tested during the illness for a syphilitic reaction. The serum is allowed to separate during one hour's incubation and several hours' standing in the cold room. After decantation all particles are thrown down by centrifugalization and the serum is pooled with that of other persons before being bottled in quantities of 120 c.cm.. To each 100 c.cm. of serum 20 c.cm. of a 1.5% solution of uricresol in normal saline solution are added. A few tests showed that the serum treated in this manner did not contain any contaminating organisms capable of recognition on culture. The authors do not record any experiments carried out with a view to prove the sterility of the serum. It is held by some that influenza is caused by a filter-passing or ultra-microscopical organism. If the serum were actually sterile, it would produce no effects when injected into a healthy individual, other than those referable to the absorption of a homologous protein. The dose injected into the patients varied up to 250 c.cm. and averaged 120 c.cm.. Of the 151 patients 56 received one injection, 49 received two and 27 three, while the remaining 19 received from four to seven. It is stated that the serum was injected as early as possible after the recognition of a complicating broncho-pneumonia. The injections were usually followed by a rigor within a half of an hour, while in a few hours signs of decided improvement are said to have been noted. The fever persisted in 13 cases for from four to eleven days after the injection; in 14 cases it persisted for three days, in 38 for two days, in 56 for one day and in 27 for less than 24 hours. The length of the febrile period varied considerably. Apparently this period is measured from the onset of the pneumonic signs. In

nine instances it terminated in the first day. As no details of these cases are given, it would not be unreasonable to question whether the pulmonary complication was not anticipated rather than diagnosed. In 110 the period varied between two and five days. In the majority it was of three days' duration. This certainly is short and should be regarded as evidence of the efficacy of the treatment, if confirmatory data could be adduced. In a further 20 cases the pneumonia lasted from five to thirteen days, while in 6 the duration was undetermined. Six of the patients died. Three showed no further complications, while three died as the result of an empyema, ascribed to a hæmolytic streptococcus. A mortality of 4% is distinctly low for the pulmonary complications of influenza and justifies the authors in recommending the treatment. They have, however, not proved what the mortality of the disease in the same group of patients would have been had one half been treated without serum. The treatment is sound on theoretical grounds, not only for the secondary pulmonary affection, but also for the primary influenza. If the impressions of the authors are confirmed as facts by other observers, a path will be opened for a better study of the pathogenesis of influenza and its most common complications.

#### PRESENTATION TO THE PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION.

Members will have noted in the *British Medical Journal* of April 26 and of May 3, 1919, the announcement that the President of the British Medical Association, Sir Clifford Allbutt, K.C.B., F.R.S., has been invited by the Council to accept a portrait of himself as a gift from the members of the Association and had consented to allow an eminent artist to carry out the work. There are many members in Australia who have followed with keen interest the active development of the Association during the whole period of the war under the Presidency of Sir Clifford Allbutt. There is ample evidence that he has taken the many tasks of this important office earnestly and seriously and has been of immense service to the Association and to the medical profession. It is probable that these members will wish to contribute toward the cost of the presentation. Subscriptions are limited to one guinea. *The Medical Journal of Australia* will undertake to receive and forward to London any subscriptions that members of the Australian Branches may desire to send. Cheques should be made payable to *The Medical Journal of Australia* and forwarded to the office, 30-34 Elizabeth Street, Sydney.

#### THE SPREAD OF INFLUENZA.

During the past few weeks the epidemic of influenza has again assumed serious proportions in Sydney. In view of the experience during the previous wave of the epidemic in March and April of the current year, it seems that the Government of New South Wales has been wise not to re-apply the many restrictions on the community. It is, however, worthy of note that a considerable spread of infection followed a football match held on June 9, 1919, at which about 40,000 persons were congregated in close proximity. An excellent photograph of this great crowd, published in a weekly periodical, shows that the individuals

<sup>1</sup> *Journal of the American Medical Association*, March 8, 1919.

in this seething mass of humanity were shouting excitedly and crowding in a manner calculated to spread any infection that might be present in even a small proportion of individuals. Again, a large number of infections have been traced to the Peace Ball, held on June 5 at the Town Hall, Sydney, where a relatively large crowd was aggregated, often in extremely close quarters.

We wish to call attention to a result of an endeavour to lessen the burden of overwork attaching to the depleted staff of the Commonwealth Bank. To meet the difficult situation, the authorities have ordered the bank to close to the general public at noon each day. During the two hours of business a large crowd of persons accumulates in the head office of the Commonwealth Bank. The department most affected is the Savings Bank Department. It would seem as if illness in the homes of the depositors had impelled an unusual number to draw out money. If this surmise be correct, this closely-packed crowd would consist of many persons who have passed from houses harbouring influenza infection. Surely the measure of relief of an over-worked staff of bank tellers and clerks should not be at the expense of a very much larger section of the population. It would seem as if the best prophylaxis is the avoidance of crowds, especially when the individuals are not seated and not silent.

#### DINNER TO THE MEDICAL OFFICERS OF THE ROYAL AUSTRALIAN NAVY.

The President and members of the Victorian Branch of the British Medical Association entertained at dinner the medical officers of the vessels of the Australian Navy then in Melbourne on June 12, 1919. The function was held at Scott's Hotel, Collins Street, and was attended by 70 members of the Branch.

The guests were Surgeon-Commander E. T. P. Eames, R.N. and R.A.N., Director of Naval Medical Services; Surgeon-Lieutenant-Commander A. R. Caw, R.A.N., Principal Medical Officer, H.M.A.S. *Australia*; Surgeon-Lieutenant-Commander L. Darby, R.A.N.; Surgeon-Lieutenant-Commander Ramsay Smith, R.A.N.; Surgeon-Lieutenant F. Temple Grey, R.A.N.; Surgeon-Lieutenant Mackintosh, R.A.N.; Surgeon-Lieutenant Guy A. Lendon, R.A.N.; and Lieutenant Attwell, Dental Staff Surgeon, H.M.A.S. *Australia*.

After the loyal toast had been honoured, the President, Dr. J. Ramsay Webb, announced that, owing to the coincident official dinner being held on board H.M.S. *New Zealand* by Admiral Lord Jellicoe, he had to apologize for the absence of the Honourable the Minister for the Navy and Admiral Sir William Cresswell. He also regretted the unavoidable absence of Mr. F. D. Bird, C.B.

Naval medical officers whom they would have been pleased to welcome as their guests had they been able to be present were Surgeon-Commander J. A. Campbell, Surgeon-Commander Devass and Surgeon-Lieutenant Ellis. He tendered apologies from these gentlemen.

The President further remarked that he particularly regretted the absence of the Honourable the Minister for the Navy, because the Association had thereby missed an opportunity of demonstrating to the Minister the intense pride and gratification felt by the medical profession on shore in the medical service of the Navy. However, the Association hoped to do all in its power for the medical officers of the Navy, whether it be through university channels, hospitals, or the usual activities of the British Medical Association. In the absence of Mr. F. D. Bird he would call on Mr. G. A. Syme to propose the toast of "The Medical Officers of the Royal Navy and of the Royal Australian Navy."

Mr. Syme said that he derived the greatest pleasure in presenting the toast of the medical officers of the Royal Navy and of the Royal Australian Navy. He had been informed at seven that evening that Mr. Bird would be unable to be present, and it would thus appear that whereas "some were born great, some achieved greatness and some had greatness thrust upon them," he on that occasion had had "greatness thrust upon him." While he was not endowed with the ready wit and felicity of phrase of Mr. Bird he was none the less sensible of the honour conferred upon him in being entrusted with such a toast. But the toast did not require any persuasive eloquence to commend it, and the occasion was historic.

Their guests were present in the dual capacity of members of the Navy and as their own professional brethren. He found it difficult to express what they all felt for the Navy. Who did not admire, love and honour the forces of the British Navy? He asked his hearers to imagine the condition of Australia, and indeed of the whole world, without the Navy! What would have been the position but for the Navy? He doubted whether the people of Australia had ever adequately visualized the fate of Australia had not the German fleet been "bottled up."

The Navy had acquired a reputation for silence; and a very great fact to admire about the Navy was its silence. How little they had heard about the Navy in the North Sea. And yet they knew that it was there! As did the Germans! The silence of the Navy was as that of gravity, yet the Navy was a force equally persistent and inexorable. He asked his hearers to imagine the awful conditions that would obtain if gravity made a noise. The silence of the Navy was more impressive than the thunder of Thor or the forges of Vulcan, those gods whom the Germans had idolized.

He had at times heard distinctions drawn between the combatant officers of the Navy and its medical officers, rather to the disparagement of the latter, and on such occasions he had ventured to point out that the naval medical officer incurred all the risks of the combatant officer. He himself had experienced something of the naval medical officers' position while on the hospital ship *Gascon* at Gallipoli. Their hospital ship was placed between two men-of-war, both of which were vigorously in action. He realized on that occasion that he was in no better position than that of the combatant officer; he also realized that the situation of the operating-room was invariably the same for naval medical officers when in action—near the heart of the ship.

War was a supreme test of men. Their guests had come triumphantly through the most rigorous experiences. He knew he was speaking for the gathering when he said that they could admire the courage, capabilities and worth of the naval medical officers. They felt it an honour to extend the hand of professional fellowship and welcome their guests right heartily.

He commended the toast to his audience, and coupled therewith the name of Surgeon-Commander Eames.

Surgeon-Commander Eames, in response, said that he was extremely gratified to note that the Royal Navy and the Royal Australian Navy were coupled in the toast. A few years ago it had been his privilege to respond to the toast of "The Navy" in Australia, and he had remarked on that occasion that the Royal Navy and the Royal Australian Navy might one day fight together as an Imperial Navy. In the great war they had seen this come to pass. The Australian Navy was worthy of all the traditions of the Imperial Navy; the pup had joined the pack, was blooded and had proved true to the old breed.

His own position for the time being was that of Director of Naval Medical Services of the Royal Australian Navy, and his great task was to secure more medical officers for the Royal Australian Navy. He would like to say that he had received to date a good deal of encouragement in this respect. The Naval Medical Service needed capable and conscientious men and could offer valuable work and good comradeship.

He hoped to see and develop in the Royal Australian Navy a medical service which should be second to none; the material was at hand and it needed only to be utilized.

He recollected informing one of his professors that he had chosen the Navy for a career and was asked for his reason for "throwing himself away on the Navy." Such a spirit was altogether wrong. He wished to emphasize that there were opportunities in the Navy for good work, and, further, he could assure his audience that such good work had been accomplished. The health of the crews had been carefully and successfully maintained, although it had been frequently an uphill fight. It was encouraging to the naval medical officers to know that the medical men on shore felt for their professional brethren afloat such interest as had been manifested that evening. He found it particularly gratifying to be able to tell a gathering of Australians how splendidly the work of the Australian Navy was regarded by the Royal Navy.

He wished to thank them heartily for the manner in which they had received the toast.

Dr. R. R. Stawell said that he esteemed it a privilege to propose the toast of the "Royal Australian Navy." On that evening—a very special naval occasion—their thoughts went back to the very early days of the war, days when they were all filled with hopes and worried by some fears and anxieties as to how the Navy would fare. There were times of waiting, silence, murmurs and rumours of enemy cruisers. Where was their own *Australia* and little fleet? Were their ships well equipped and their men adequately trained? Then, suddenly, news that made every Australian thrill was flashed round the world—the *Sydney* had met and beaten the *Emden*. That meeting was for the *Sydney*, the Australian Navy and for them all one of the glorious chances of war, but it was so chance that the officers and men of the *Sydney* had the courage, daring and efficiency in naval warfare displayed by them on that occasion.

The story would become one of the classics of Australian history, and rightly so. He would remind them that the medical story of the fight had been ably recorded by one of their guests then present, Surgeon-Lieutenant-Commander Darby.

He fully associated himself with Mr. Syme as to the hazards incurred by the medical officers of the Navy, for whom there was no place behind the lines—only behind the guns. The Navy had exhibited courage, endurance, steadfastness through long periods of dreariness marked by no relief. Apart from the name, laws and institutions of Great Britain they had also inherited some of the spirit which had made Great Britain great. They all earnestly hoped that peace would now be enduring, but it required no very vivid imagination to foresee new dangers and difficulties, some of which might confront the Australian Navy in maintaining its efficiency and preparedness in time of peace. To such difficulties the distinguished mind of Lord Jellicoe had already turned, and he was even then in Australia to advise on matters connected with naval defence. While thus linked up with Great Britain, none of them need have any fears as to the broad outlook in matters naval. A problem they had to consider was that the life of the naval medical officer must be made a career of high professional attractiveness. It must attract by virtue of its broad interests, by the quality of professional work attainable and, an aspect they could not ignore, by an ample income. He was entirely in support of the President and Mr. Syme in the assurance they had given the medical officers of the Navy of the cordial appreciation of their professional brethren on land. The naval medical officers could further rely on their support in any efforts they might make to promote the efficiency of the naval medical service. He was confident that all difficulties would be surmounted. All felt now that Australia had achieved her status as a nation and the work of the Army and Navy had done much to accomplish it.

All their undertakings in the future should be better and greater for the events of the still recent past. His Majesty's Australian Ship *Australia* would always carry the tradition of the North Sea, the *Sydney* that of the *Emden*. Thus there had been planted the living force of a high tradition, enhanced by the uplifting influence of the memory of the dead.

Before requesting them to honour the toast, he wished to quote the lines of Kipling:—

The game is more than the players of the game,  
The ship is more than the crew.

He gave them the toast of "The Royal Australian Navy," coupled with the names of Surgeon-Commander Caw and Surgeon-Lieutenant-Commander Darby.

Surgeon-Commander Caw said that he regretted there were no executive officers present, as such officers would be more representative than he was. He also regretted that they could not witness the *esprit de corps* so evident in the British Medical Association. The appreciation and compliments of one's own people always carried furthest, and if the Australian Navy could always command such expressions as had been their tribute that evening, so much the better for the Royal Australian Navy. He considered himself fortunate to have been on the *Australia* throughout the war. At the very outset he had received a telegram from Dr. Hornabrook, offering his services in any capacity, and he wished to pay a tribute to the work of Dr. Hornabrook on the *Australia*.

The speaker proceeded to a very interesting résumé of the

cruises and experiences of H.M.A.S. *Australia*, which he narrated in a humorous and entertaining manner. He thought that perhaps their worst enemies had been measles, German measles and mumps; they had had to cope with outbreaks of these infectious diseases. They had been most fortunate in being incorporated in the Grand Fleet, and he would never forget the impressiveness of the occasion on which they first joined the Grand Fleet. It was difficult to convey to his audience an adequate conception of ships, ships and more ships conducting orderly manoeuvres and extending as far as the eye could reach. Surgeon-Commander Caw then presented a vivid description of the surrender of the German fleet at Scarpa Flow and concluded by thanking his hosts for their enthusiastic welcome and reception of the toast.

Surgeon-Lieutenant-Commander Darby confessed to no small degree of embarrassment on rising to speak. At the same time he felt proud of the opportunity afforded him of sincerely thanking Mr. Syme and Dr. Stawell for their very generous remarks concerning the Royal Australian Naval Medical Service. He regarded himself as very fortunate in having been on the lucky ship; he had joined the *Sydney* on her trial trip. He never for one moment regretted his choice of the Naval Medical Service as a career. In fact, he had found his period with the Navy the best time of his life. A few years ago he would never have imagined that he would have been afforded the wonderful privilege of joining up with the Grand Fleet. It was indeed a wonderful experience and an imposing sight. While on service they had had to contend with German measles and other epidemics; at one stage German measles was so prevalent that they had scarcely sufficient men to man the guns. The health of the men at times suffered from want of acclimatization when they proceeded from the tropics to the North Sea.

After relating various anecdotes and experiences, Surgeon-Lieutenant-Commander Darby thanked the members heartily for their extremely kind demonstration and took opportunity of expressing admiration for the work of the military medical officers. He had noticed the names of many men of his University year in despatches.

Dr. J. W. Springthorpe briefly proposed the health of the President. After Dr. Ramsay Webb had responded, the function terminated with the singing of the National Anthem.

## University Intelligence.

### THE UNIVERSITY OF SYDNEY.

A meeting of the Senate of the University of Sydney was held on June 2, 1919, at University Chambers, Phillip Street, Sydney.

The following degrees were conferred *in absentia*: Bachelor of Arts: Hutton, Emille. Master of Surgery: Edwards, Rowland Campbell, and O'Riordan, Sydney Michael.

On the recommendation of the committee appointed to consider the applications for the lectureship in accountancy, Mr. George P. Carter, A.C.A., was appointed.

A letter was received from the Albion Motor Car Co., offering to present a 15 horse power 4-cylinder internal combustion engine to the Engineering School. It was resolved to accept the gift and to forward a letter of thanks.

It was resolved that a letter of congratulation be sent to Professor Lawson on the award to him of the Makkougall Brisbane Prize by the Royal Society of Edinburgh.

The following recommendations contained in a report from the Professorial Board on the re-arrangement of terms for the current year were adopted:—

- (1) That Lent Term be extended to June 28 (nine weeks).
- (2) That Trinity Term lectures commence on July 7 and end on September 13 (ten weeks).
- (3) That the lectures of Michaelmas Term extend from September 29 to November 29 (nine weeks).
- (4) That the lectures of Michaelmas Term for students of the Second, Third and Fourth Years in the Faculty of Medicine be from October 6 to December 13.
- (5) That the Annual Examinations commence on Monday, December 8, and that the term end on December 10.

The following recommendation, contained in a report from the Faculty of Science, was adopted: That permission be



given to Mr. C. D. Gillies, Master of Science, Queensland, to proceed to the degree of Doctor of Science of the University of Sydney in the subject of Zoology, in accordance with by-laws Chapter XXI., Section 16a.

### PNEUMONIC INFLUENZA.

One proclamation imposing restrictions on persons within the municipal area of Warralua was published in the *New South Wales Government Gazette* of June 13, 1919, and two others were published on June 17, imposing restrictions on persons in the municipal areas of Narrabri and Bega. The restrictions are identical with those previously imposed in other portions of New South Wales.

In the *Queensland Government Gazette* of June 7, 9, 10, 11 and 12 a series of orders of the Public Health Department are issued, making the holding of church services subject to the observance of certain conditions and enforcing the closure of schools, places of amusement and the like. These proclamations apply to the areas of the Shires of Chinchilla, Coomera, Mirani, Noosa, Pioneer, Sarina, Caboolture, Inglewood, Normanby, Rawbelle, Tambourine, Banana, Callungal, Clifton, Wambo and Clengallan and the townships of Lake's Creek, Mount Colliery, Tallegalla and Tannymorel.

The Commissioner of Public Health of Queensland has published two orders, on June 14 and June 17, 1919, respectively, imposing restrictions on persons in the areas of the Shires of Boulia, Johnstone, Murgon and Eacham. These restrictions are similar to those previously applied in other portions of Queensland.

The undermentioned have been elected members of the New South Wales Branch of the British Medical Association:

Frederic Cyprian Herlihy, Esq., M.B., Ch.M. (1918, Univ. Sydney), 99 Norton Street, Leichhardt.

Reginald Aloysius Fitzherbert, Esq., M.B. (1913, Univ. Sydney), A.A.M.C. Headquarters, Rabaul.

George Frederick Hewer, Esq., M.B., Ch.M. (1919, Univ. Sydney), Devilliers Avenue, Chatswood.

John Thomson Anderson, Esq., M.B., Ch.M. (1914, Univ. Sydney), Ben Boyd Road, Neutral Bay.

William Reginald Darton, Esq., M.B., Ch.M. (1919, Univ. Sydney), Lewisham Hospital.

Gordon John Kennedy McIver, Esq., M.B. et Ch.B. (1916, Univ. Melbourne), has been elected a member of the Victorian Branch of the British Medical Association.

J. H. S. Jackson, Esq., M.B., Ch.B. (Univ. Melb., 1919), South Brisbane, and J. B. Hogg, Esq., M.B. (Univ. Sydney, 1918), Brisbane Military Hospital, have been elected members of the Queensland Branch.

The undermentioned have been nominated for election as members of the New South Wales Branch of the British Medical Association:—

Miss Mavis Victoria Grant, M.B., Ch.M. (1918, Univ. Sydney), Renwick Hospital, Thomas Street, City.

Leslie John Shortland, Esq., M.B., Ch.M. (1919, Univ. Sydney), 103 Cambridge Street, Stanmore.

Alexander Robert Scott-Orr, Esq., M.B., Ch.M. (1919, Univ. Sydney), Fairfield.

It is with great regret that we have to record the death of Dr. Charles Savill Willis, Principal Medical Officer of the Department of Public Instruction of New South Wales. Dr. Willis was infected with influenza in the second week of June and died at his home on June 23, 1919.

### Obituary.

CHARLES WILLIAM MACCARTHY.

In our issue of June 14, 1919, we recorded the death of Charles William MacCarthy on June 7, at the age of 70 years. He was born at Fethard, Tipperary, in Ireland, and was educated in Dublin. In 1872 he qualified at the King's and Queen's College of Physicians of Ireland. Later in his career he sought and gained the Fellowship of the Royal College of Surgeons of Ireland and in 1884 he took the

degree of doctor of medicine at the Brussels University. Before he had completed his medical studies in Dublin the Franco-Prussian war broke out and he volunteered for service with the French Army. He joined an ambulance corps and distinguished himself greatly by his self-sacrificing and manly bearing. For his services he was awarded the *Croix Militaire*. In 1874 he determined to seek his fortune in Australia, and his choice fell upon Sydney as the most promising field of activity. He worked up a valuable practice and after a short time was appointed to the medical staff of St. Vincent's Hospital, Darlinghurst. At one time he was a member of the British Medical Association, but he did not entirely approve of the keener and more democratic organization of recent years and he allowed his membership to lapse. He was a skilful surgeon and commanded the respect, admiration and affection of his colleagues and patients. He was widely known as a generous, broad-minded and sympathetic adviser and no poor person ever failed to obtain practical sympathy and assistance from him.

Charles William MacCarthy was perhaps more distinguished as a sculptor than as a medical practitioner. He executed several celebrated pieces of art in marble, the most notable being a bust of his younger daughter and another of Napoleon Bonaparte. He was a very clever painter and a good musician and composer. He was a staunch Irishman, a devout Roman Catholic and a keen loyalist. He took a prominent part in the Home Rule movement and was bitterly opposed to the infusion of revolutionary tendencies into the Irish question. He was possessed of literary ability and was widely read. A man of remarkable culture, he attracted many to him, and his friends numbered legion. The list of those who followed him to his last resting-place is eloquent testimony of esteem in which he was held.

### Correspondence.

#### WHITE MEN IN THE TROPICS.

Sir,—It seems to me that there should be an answer to Dr. MacLaurin's question: "Why did not the natives of Java, Sumatra, Borneo, etc., come down and settle the north of Australia if North Australia is such a marvellous land of riches?"

(1) Primitive boatmen do not usually venture far out of sight of land.

(2) If some dusky Columbuses had seen Australia in their travels, only obvious mineral wealth would have attracted them.

(3) Regarding agricultural wealth. Agricultural people only settle in foreign lands across the sea in any numbers when they are subjected to persecution, usually of a religious character. A most unlikely thing to obtain in the places mentioned.

Will Northern Australia be settled? Yes, when Australian statesmen understand what causes lead to the migration of peasantry from one country to another. Two bands of peasants have already sought to settle in Northern Australia, but they were both "turned down" as undesirables. This may help Dr. MacLaurin to understand why he could get no satisfactory answer from his political friends.

As another correspondent suggests, the diet of such settlers will differ much from that of the average Englishman, and I may add that, when the real settler arrives we won't find him worrying about "great natural resources."

Yours, etc.,

C. G. MOFFITT.

Kenmore, New South Wales,  
June 16, 1919.

### Proceedings of the Australian Medical Boards.

#### QUEENSLAND.

The undermentioned have been registered, under the provisions of *The Medical Act of 1867*, as duly qualified medical practitioners:—

John Robert McNeil Beith, M.B., Ch.M. (Univ. Sydney, 1914), Sherwood.

Walter Watson Feather, M.B. (Univ. Sydney, 1919),  
Toowoomba.

John Henry Sandford Jackson, M.B., Ch.B. (Univ. Melb.,  
1919), South Brisbane.

Reginald Williams, L.R.C.P. and S., Edin., L.F.P.S.,  
Glasg., L.M., 1893, Charleville.

### Medical Appointments.

Dr. Harold Lister (B.M.A.) has been appointed Government Medical Officer at Cobargo and Dr. R. Tregarthen Michell (B.M.A.) at Blackheath, New South Wales.

The appointment of Dr. James Booth (B.M.A.) as a Special Magistrate, in pursuance of Section 5 of the *Children's Court Act, 1915*, for the Petty Sessions District of North Melbourne, is announced in the *Victoria Government Gazette* of June 11, 1919.

During the absence on leave of Dr. W. H. Barker (B.M.A.), Dr. Albert Curtis (B.M.A.) has been appointed Superintendent of the Hospital for the Insane, Ballarat, and of the Receiving House, Ballarat, Victoria.

Dr. V. Dossitor has been appointed Acting Medical Officer of Health to the Norseman Road Board, Western Australia.

The appointment of Dr. F. C. S. Shaw (B.M.A.) as Deputy Licensing Magistrate during the absence of the Licensing Magistrate for the district of Wyalong, is announced in the *New South Wales Government Gazette* of June 20, 1919.

### Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xix.

Children's Hospital (Inc.), Perth: Chief Resident Medical Officer.

### Medical Appointments.

#### IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
<b>VICTORIA.</b> (Hon. Sec., Medical Society Hall, East Melbourne.)	All Friendly Society Lodges, Institutes, Medical Dispensaries and other Contract Practice. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
<b>QUEENSLAND.</b> (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Australian Natives' Association. Brisbane United Friendly Society Institute. Cloncurry Hospital.
<b>TASMANIA.</b> (Hon. Sec., Macquarie Street, Hobart.)	Medical Officers in all State-aided Hospitals in Tasmania.

Branch.	APPOINTMENTS.
<b>SOUTH AUSTRALIA.</b> (Hon. Sec., 3 North Terrace, Adelaide.)	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
<b>WESTERN AUSTRALIA.</b> (Hon. Sec. 6 Bank of New South Wales Chambers, St. George's Terrace, Perth.)	All Contract Practice Appointments in Western Australia.
<b>NEW SOUTH WALES.</b> (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Balmain United Friendly Societies' Dispensary. Canterbury United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Friendly Society Lodges at Lithgow. Friendly Society Lodges at Parramatta, Auburn and Lidcombe. Leichhardt and Petersham Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. Newcastle Collieries—Killingworth, Seaham Nos. 1 and 2, West Wallsend. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phoenix Mutual Provident Society.
<b>NEW ZEALAND: WELLINGTON DIVISION.</b> (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, New Zealand.

### Diary for the Month.

- July 1.—Tas. Branch, B.M.A., Branch and Council.  
July 1.—N.S.W. Branch, B.M.A., Council.  
July 2.—Vic. Branch, B.M.A.  
July 8.—N.S.W. Branch, B.M.A., Ethics Committee.  
July 11.—N.S.W. Branch, B.M.A., Clinical.  
July 11.—Q. Branch, B.M.A., Council.  
July 11.—S. Aust. Branch, B.M.A., Council.  
July 15.—Tas. Branch, B.M.A., Branch and Council.  
July 15.—N.S.W. Branch, B.M.A., Executive and Finance Committee.  
July 16.—W. Aust. Branch, B.M.A., Branch and Council.  
July 17.—Vic. Branch, B.M.A., Council.  
July 18.—Eastern Suburbs Med. Assoc. (N.S.W.).  
July 19.—Northern Suburbs Med. Assoc. (N.S.W.).  
July 22.—N.S.W. Branch, B.M.A., Medical Politics Committee; Organization and Science Committee.

#### EDITORIAL NOTICES.

Manuscripts forwarded to the office of this journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated. All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney.

The Secretary of the Victorian Branch is endeavouring to secure copies of the issues of the *British Medical Journal* of the following dates, to complete a file for one of the members. We shall be grateful to any of our readers who has a spare copy of any of the numbers sought, if he will offer them to the Secretary of the Branch:—

1815: April 3 and 10; July 10, 17, 24, 31; August 7 and 21.  
1916: July 8, August 5 and 12, November 18.

